

Bits of Bytes

Newsletter of the Pikes Peak Computer Application Society, Colorado Springs, CO

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Issue 10



The Prez Sez

by Toni Logan,
President,
P*PCompAS

It is hard to believe that it is October already. Time to think about renewing your membership for the next year. Also be prepared for elections in December.

Last month our presentation was a most interesting one on 3D printing. We were able to see the machine in action. Ray Hutton, who gave the program, also joined our club. Welcome Ray. Ray had several examples of 3D printing to show us, one of which was a moving Stargate, but unfortunately, we weren't able to be transported to some exotic place.

Joe Nuvolini gave us a complete demonstration of the new projector in case one of us has to work it. The breakfast meeting in September was a cozy affair, and the food and conversation were great.

See you all at the October meeting where we will see a demonstration of a 360 degree camera. ☺



Meeting Minutes

by Greg Lenihan,
1-Day Secretary,
P*PCompAS

The 2 September 2017 meeting was called to order at 9:00 a.m. by President Toni Logan. Coffee is compliments of Cameron at Starbucks, and free to first-time

Next P*PCompAS meeting: Saturday, 7 October 2017

We may hear about 360-degree cameras.

guests. Our president tried to quell the restlessness among members due to the lack of doughnuts.

OFFICER REPORTS

Program Chair Cary Quinn was late, so there was no report.

The Treasurer's Report was given by Toni Logan. We have \$5457.17 in savings, and \$450 was transferred to savings from checking to defray the cost of the projector. Checking had \$550.81. The projector cost \$555.02.

APCUG Rep Joe Nuvolini reported that Judy Tylour was looking for cards that clubs use to advertise to potential members, which we don't have.

Membership Chair Ann Titus had nothing to report.

Newsletter Editor Greg Lenihan passed out a few newsletters and announced the October deadline as 23 September.

Librarian Paul Godfrey had nothing to report.

Hospitality was not present to report among grumblings due to the lack of doughnuts.

Barista David George announced that in October he will switch to instant decaf rather than brewing a pot that nobody drinks.

Soundman AJ Whelan had nothing to report.

OLD BUSINESS

Nuvo brought up some points on the new 5000-lumen projector:

- There is a card for turning it on and off (there is no switch).
- Do not turn it on after

immediately turning it off.

- Our insurance policy covers a new light bulb.
- The manual says after 2000 hours, we should buy a new bulb. That should be in around 33 years.
- Cary Quinn will ecologically dispose of our old printer.
- The bag has an air-in and air-out slotted side. Put away with air-out slot so it continues to cool.

NEW BUSINESS

The next breakfast is Saturday, 16 September, and the next meeting is October 7th. During the break, Cary made up for being late by running out for doughnuts.

AROUND THE ROOM

The audio of Around the Room is on our club website.

Continued on page 2

In This Issue

Articles

3 Ways Chromebooks are Better.....	6
CCleaner Hack	8
Fun Websites	4
How Much Free Space?.....	5
Nybbles and Bits	2
One Win 10 Trick from the Pros	3
Preparedness	9

P*PCompAS

Meeting Minutes	1
The Prez Sez	1



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Nybbles and Bits

by John Pearce, P*PCompAS



Ready for the next semi-annual Windows 10 update? The Fall Creators Update is set for release on October 17th.

Preparing for this update is not much different than the Creators Update (version 1703) earlier this year. However, there have been problems with update packages failing to install which often causes Windows Update to stop working. So part of your preparation is to check to be sure all the updates have successfully installed.

Open Settings, select Update & security, then Update history. Scan the list of updates starting from the bottom looking for an update that failed to install and did not successfully install at a later time. If you don't find any, you should be ready for the Fall Creators Update. In my case, the 2017-07 Cumulative Update installation failed twice on my Win10 laptop.

If you have a similar problem, I suggest using the Troubleshooter for Windows Update to resolve

the problem. Open Settings to the Windows Update screen, click on Troubleshoot in the left column then on Windows Update. That will show the "Run the troubleshooter" choice. Click it to start the problem detection phase. If no problems are found, go ahead and click the option Try troubleshooting as an administrator. I had to do that with my notebook. The troubleshooter then found and fixed the problems (see below). After running the troubleshooter, I clicked Check for updates and the 2017-07 Cumulative Update installed successfully. ☺

Troubleshooting has completed

The troubleshooter made some changes to your system. Try attempting the task you were trying to do before.

Problems found	Fixed	Fixed
Service registration is missing or corrupt	Fixed	✓
Check for pending updates	Fixed	✓

Meeting Minutes (Cont. from page 1)

PRESENTATION

Cary Quinn introduced Ray Hutton and his two friends, Rick and John, who demonstrated 3D printing.

DRAWING

Book: *Who Are You People?*—
John Linder
Pack of paper—AJ Whelen ☺



Cary Quinn mugs Ray Hutton (R) after the printing presentation

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One Trick the Tech Pros Know About Windows 10

by Kevin Downey at Komando.com (tip from 9/4/17)

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You gotta love Microsoft Windows. For decades, it has been the go-to operating system for billions of computers to operate.

If you don't think about Windows, you're not alone. It's so commonplace that we're all a little guilty of taking it for granted.

You wake up in the morning, head to your home office or go to work. You turn on the computer and take care of literally every aspect of your life on it.

You use it to log onto a web browser like Google Chrome, Firefox or Microsoft Edge. You use your computer to create spreadsheets, PowerPoint presentations, legal documents and so much more.

It's gotten to the point where you might find yourself wondering, "How did I do my job before computers?" Or you may suffer a computer crash at home and break into a sweat.

"How am I going to pay my bills? How am I going to chat with my kids? How am I going to schedule my day?!"

Of course, if you're at work, you just call the IT guy. In a minute, he does something to turn the screen black. Tap, tap, tap and suddenly your computer is up and running. But, what did he do and how can you do it at home?

It has to do with something IT pros know is called Safe Mode. We'll tell you more about it and, most important, we'll give you a couple of quick tips to use Safe Mode to figure out what's wrong with your computer.

Windows Safe Mode

Unless you're an IT tech or a computer geek, and most people

aren't, you've probably seen your computer in Safe Mode but have no idea what it is. Simply, Safe Mode is a way to figure out what's wrong with your computer by opening a bare bones version of it.

It's particularly helpful if you suspect your computer is infected with a virus. If it is, you may not be able to move your cursor or restart your computer.

If something's wrong with your computer, you may not be able to click on the apps that you use every day. You may not be able to open files you've already created. It's frustrating and a little scary.

As IT pros know, Windows Safe Mode is one way to fix what's wrong with it, without viruses or other problems getting in the way. (Keep reading for tips to start your computer in Safe Mode.)

In Safe Mode, your computer doesn't turn on some hardware like your scanner or printer, for instance. Your computer doesn't run

Continued on page 4



A crowd of hungry digerati gathered outside the Country Buffet for the September breakfast, got inside, and set up our usual room. It went like clockwork, even with Nuvo, who usually arrives early to set up, out of town. The group immediately got down to business, partaking of fine food and fellowship.



One Trick (Continued from page 3)

autoexec.bat. It doesn't run config.sys either.

Your computer's graphics are also bare bones, without the images or colors that you usually see. You'll just have a black screen with words like "safe mode" on it.

If something is wrong with your computer, it might automatically open in Safe Mode. You can then start searching for problems, so you can fix it and get back to work. But, if it doesn't automatically start in Safe Mode, you'll want to force it into Safe Mode.

Safe Mode on Windows 10

If you're using one of the roughly half billion computers running the most recent version of Windows, called Windows 10, there are several ways to start your computer in Safe Mode or Safe Boot. Here's an easy way that we like.

You can use your Cortana task bar on the lower left side of your computer screen. If you use the voice-activated version of it, say "system configuration." Or just type in those words.

System Configuration >> click on System Configuration desktop app >> select Boot >> Safe Boot >> select Minimal unless you know that you need another option >> OK >> select either Restart or Exit Without Restart.

Safe Mode in Previous Versions of Windows

Try this to get into Safe Mode: Start >> Restart >> hold down the F8 key as your computer is restarting. But, do it before you see the Windows logo. Otherwise, you'll need to try again.

You'll see multiple options for Safe Mode (see Microsoft Support's descriptions below). If you're not sure which mode you need, start with Safe Mode with Networking.

- **Safe Mode with Networking.** Starts Windows in Safe Mode and includes the network drivers and services needed to access the Internet or other computers on your network.
- **Safe Mode with Command Prompt.** Starts Windows in safe mode with a command prompt window instead of the usual Windows interface. This option is intended for IT professionals and administrators.
- **Enable Boot Logging.** Creates a file, nbtlog.txt, that lists all the drivers that are installed during startup and that might be useful for advanced troubleshooting.
- **Enable low-resolution video (640x480).** Starts Windows using your current video driver and using low resolution and refresh rate settings. You can use this mode to reset your display settings. For more information, see Change your screen resolution.
- **Last Known Good Configuration (advanced).** Starts Windows with the last registry and driver configuration that worked successfully.
- **Directory Services Restore Mode.** Starts Windows domain controller running Active Directory so that the directory service can be restored. This option is intended for IT professionals and administrators.
- **Debugging Mode.** Starts Windows in an advanced troubleshooting mode intended for IT professionals and system administrators.
- **Disable automatic restart on system failure.** Prevents Windows from automatically restarting if an error causes Windows to fail. Choose this option only if Windows is stuck in a loop where Windows fails, attempts to restart, and fails again repeatedly.
- **Disable Driver Signature Enforcement.** Allows drivers containing improper signatures to be installed.
- **Start Windows Normally.** Starts Windows in its normal mode. ☺

Educational, Fun, and Interesting Web Sites - June 2017

by Howard Lewis, Midland Computer Club, MI, <http://mcc.apcug.org/>, [capmidmi \(at\) yahoo.com](mailto:capmidmi@yahoo.com)

<https://forvo.com/>

Forvo is the largest pronunciation guide in the world, the place where you'll find millions of words pronounced in their original languages. If you have a word you would like to know how to pronounce – whether it be English or one of the hundreds of languages around the world – you might be able to find help at this site. If there is a word you would like to know how to pronounce, you can request someone to pronounce it for you.

<http://www.techrepublic.com/article/what-kinds-of-people-fall-prey-to-identity-theft-phishing-and-hacks-itsnot-who-you-think/?ftag=TRE684d531&bhid=51477600>

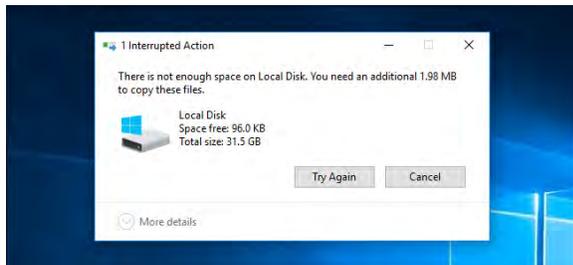
Who's most likely to be the victim of hacks and identity theft? Surprisingly, it is not who we normally think that fall prey to the various scams running around. This article looks into some of the data and draws mixed conclusions. Interesting reading!

Continued on page 6

How Much Free Space Should You Leave On Your Windows PC?

By Chris Hoffman, reprinted with permission from HowToGeek.com

Original article at: <https://www.howtogeek.com/324956/how-much-free-space-should-you-leave-on-your-windows-pc/>

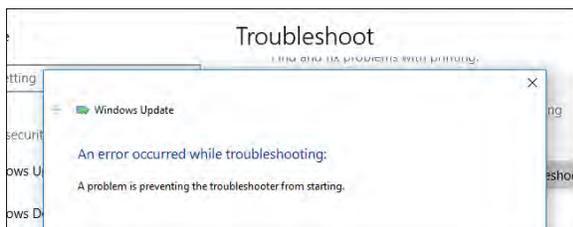


It's a bad idea to fill a Windows system drive completely full, and this could cause a variety of problems. But just how much empty space do you really need?

Why You Need Empty Space

You need some available space for a variety of reasons. If your drive fills up, you won't be able to save new files to the drive or download anything, including Windows Updates. Programs often need to create cache files, so they may crash or experience other errors. If you open a large number of programs and need extra memory, the [Windows paging file](#) will need to grow—but it won't be able to grow and programs may crash or not open.

For example, when we filled a Windows 10 PC's drive completely full and attempted to [run its included troubleshooters](#), we just saw a message saying "A problem is preventing the troubleshooter from starting." Windows provides no further detail, but freeing up space allowed the troubleshooters to start. These tools can't function without some free space, and other programs may also break for no apparent reason unless you realize your system drive is full and [free up some space](#).

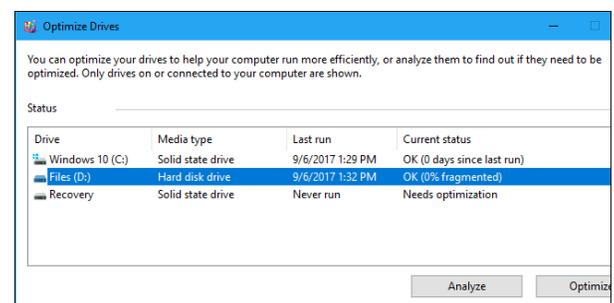


However, there's no firm percentage or number of gigabytes of free space you need to maintain. Microsoft does not disclose a specific amount of free space you should keep.

There are a few rules of thumb going around online, but they aren't necessarily applicable today. Let's talk about why.

The 15% Rule of Thumb for Mechanical Hard Drives

You'll commonly see a recommendation that you should leave 15% to 20% of a drive empty. That's because, traditionally, you needed at least [15% free space](#) on a drive so Windows could defragment it.



If you don't have 15% free space, Windows won't be able to properly [defragment the drive](#). Windows will only partially defragment the drive, and it will grow increasingly fragmented over time. However, this just applies to mechanical hard drives that need defragmentation, and not the solid-state drives generally found in more modern PCs.

The 25% Rule of Thumb for SSDs Is Probably Too Conservative

Solid-state drives traditionally needed a large chunk of available free space, too. They slow down over time as they're filled up. In 2012, [Anandtech recommended](#) leaving 25% of a solid state drive empty to avoid a decrease in performance based on their testing.

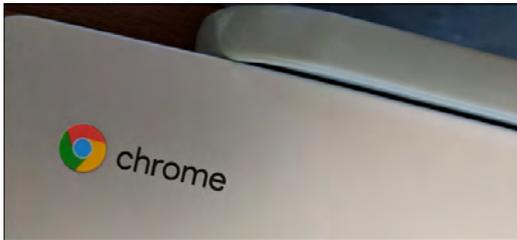
However, modern solid state drives are "overprovisioned." This overprovisioning actually means the solid state drive has more memory than it exposes to you. So, even if you fill a solid state drive near full, there's still a bunch of spare memory on the drive to help maintain performance. That 25% figure is likely too conservative on a modern solid-state drive, although it depends on how overprovisioned the

Continued on page 8

Three Ways Chromebooks Are Better Than PCs or Macs

By Cameron Summerson, reprinted with permission from HowToGeek.com

Original article at: <https://www.howtogeek.com/324761/three-ways-chromebooks-are-better-than-pcs-or-macs/>



Look, I'm not trying to start a war here, but hear me out: Chromebooks are awesome. In fact, I prefer mine to my Windows PC for nearly every use. Why? Because I think it's a better system. Let's talk about why.

Chromebooks Start Up (and Update) Instantly

When it comes down to it, no one likes to wait. And I'd argue that most users become even *more* impatient when it comes to using their computers—that 30 second wait for your computer to start up seems like an eternity.

With Chromebooks, that's not really an issue. They wake from sleep within seconds—I'm talking like two or three seconds here—and even power up from nothing within 15 seconds or so. They start up crazy fast, which means you're doing what you want to do quicker. My main Chromebook—an [ASUS Chromebook Flip C302](#) with a Core m3 processor and 4GB of RAM—always boots significantly faster

than my Windows laptop, which packs a core i7 processor and 16GB of RAM.



It's also worth mentioning the update system: Chromebooks seamlessly update in the background and apply said update to a second partition, then switch the two upon reboot—for a longer explanation, check out this post on [Android Nougat's update system](#), as it's exactly like the Chrome OS update system.

Without getting overly technical, this really means one thing for you: even when the system applies an update, you don't have to wait any longer for it to restart. We're talking 15–20 seconds and you're back at it. Windows PCs take forever to install updates.

Setting Up a New Machine Is a Snap Thanks to Synced Settings

You know when you get a new computer and have to take *hours* to set everything up to your liking? With Chromebooks, that doesn't happen—all your settings are synced across devices, so

Continued on page 7

Educational, Fun, and Interesting Sites (Cont. from page 4)

<https://betanews.com/2017/03/08/disable-ads-file-explorer-windows-10/>

If you are getting ads in Windows 10's File Explorer, here is how to disable them (at least temporarily).

<https://support.office.com/en-us/article/office-training-roadmaps-62a4b0dc-beba-4d8e-b79c-0ad200e705a1>

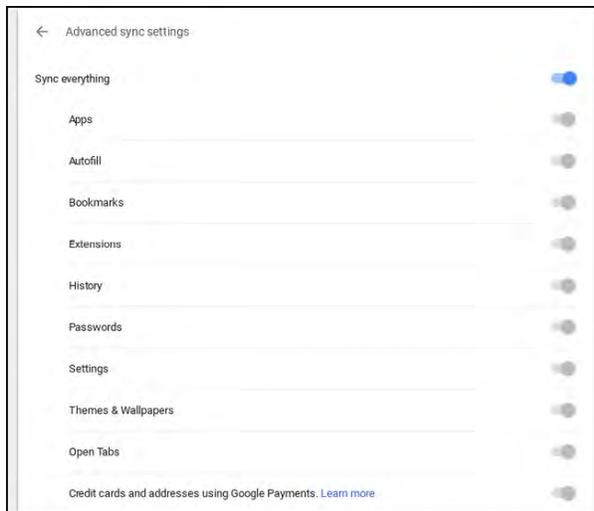
Microsoft offers free basic training on the use of several of the Microsoft Office products (Word, Excel, Outlook, PowerPoint and Access). They are in pdf format and can be downloaded to view at your leisure.

<http://deep-web.org/how-to-research/deep-web-search-engines/>

We all search the Web at various times and we sometimes hear about the “dark web” (you don't want to go there unless you know the ramifications!). But did you know there is also the “deep web?” The web as we know it is really just a small portion of the Internet that the major search engines (Google, Bing, Yahoo, etc.) view. But there is much more out there that can be searched with the appropriate search engine. This site lists some of the specialized search engines to find that really hard to find information. ☺

Chromebooks (Cont. from page 6)

once you've set up *one* Chromebook, you're good. Hell, even your settings (including extensions and apps) are synced from the Chrome browser on Windows or Mac.



So, for example, I've had six or so different Chromebooks and I use Chrome on my Windows desktop. When I log into a new Chromebook for the first time, I usually leave it alone for about 15 minutes or so—all of the settings from my previous Chromebook and Windows Chrome install are synced to the new 'Book. That includes installed apps, extensions, icons in the shelf, and even the wallpaper. It's literally a seamless transition.

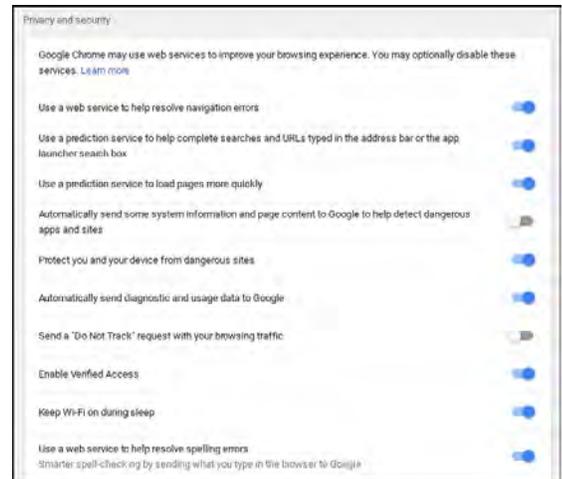
And if I find a killer new extension while I'm on my Windows machine, it will sync to my Chromebook as soon as I install it. The whole thing is easily the most seamless transition between devices I've ever used. Everything is automatic, happens in the background, and takes place instantly.

But, if you don't like that much data syncing between devices, it's all granular—you can control what gets synced and what doesn't. I'm so into that.

Instant, Always-On Security (and No Viruses)

This is arguably the biggest reason to switch to a Chromebook: fewer security woes. The reason for this is multi-fold.

For starters, all third-party software goes through Google first. It's highly unlikely you'll get a virus, not only because you're using Linux but because if it's not in the Chrome Web Store (or Play Store for devices with Android apps), then it's not getting installed. [Browser extensions do](#)



[have their own privacy issues](#), but overall, Chromebooks are a lot safer than Windows machines.



In addition, every webpage runs in a virtual sandbox—this means it's kept away from the rest of the system. If a threat exists on a page, it only exists *on that page*. It can't access the rest of the system.

Beyond that, every Chromebook out there has what's called *Verified Boot*. This essentially verifies the integrity of the operating system every time the computer boots up. If something is detected as corrupted or otherwise awry, it will automatically repair the system. Sometimes this might mean powerwashing the system—the term used for a factory reset on a Chromebook—but you'll be back up and running in no time thanks to the device sync I mentioned earlier.

Now, all that said, I get that Chromebooks aren't for every use. Am I going to suggest a Chromebook for a graphic designer, audio engineer, or video editor? No. Not even close. But what about a college student, general user, or even your mom? Absolutely. In fact, I'd argue there's no better choice for that group. ☺

What the CCleaner Hack Means to You

By Leo Notenboom, <https://newsletter.askleo.com>; published under the Creative Commons License

How about a word on CCleaner. Do you still recommend?

I do.

I don't believe in "one strike and you're out." CCleaner remains a valuable tool for your computer maintenance needs...

... regardless of what is being said by some click-bait headlines.

What happened

For one month, downloads of CCleaner version 5.33.6162 [included malicious software](#).

It's a company's worst nightmare. I'm constantly telling people to [download](#) software from the official download site to avoid unexpected add-ons in the form of [PUPs](#) and malware. When the official site itself is compromised, even that advice doesn't help.

Avast (the new owners of [Piriform's CCleaner](#)) has updated the product to remove the malware, and current downloads are safe. They're also in the process of determining the exact scope of the attack, who was vulnerable and to what degree, and what safeguards they need to avoid this type of thing happening again.

Initial indications are that while the malware has affected over two million machines, it's effectively been neutered. The malware itself did nothing malicious, other than act as a gateway for the potential backdoor installation of additional malware. The command-and-control servers used to make that delivery have been taken down. The current understanding

is that this was a targeted attack on "select large technology and telecommunication companies," [according to Avast](#). Consumer machines were characterized as "uninteresting" to the malware.

What seems to have gone well

In my opinion, Avast has done a good job of publicly reporting the issues, and continuing to report on the progress of their investigation.

Of course this should never have happened, but as I've said before: [there's no such thing as perfect security](#). What's arguably at least as important as good security is the quality, speed, and honesty in response to security issues that are discovered.

So far, Avast appears to be handling it well.

Disappointing headlines

I wish I could say the same for some of their competitors.

In recent days, I've seen at least two cases of companies I would characterize as being in competition with either Avast or CCleaner publishing headlines and "analysis" I can only characterize as hyperbole. Rather than addressing the specific issues encountered, and perhaps contrasting their own product in comparison, they seem to be using this event as an excuse to use the worst possible terms and impacts to characterize CCleaner (or Avast) as

Continued on page 9

Free Space (Continued from page 5)

drive is. You can afford to use more of the drive and fill it up with more data.

The Answer: It Depends

There's no specific number or percentage that fits every Windows PC. All Microsoft will tell you is that you need 20 GB of space before you install a 64-bit Windows 10 system on a modern PC. After that, you're on your own.

The rules of thumb can help. If

you have a mechanical hard drive, leaving at least 15% of it empty can reduce fragmentation in newly created files and make it easier for Windows to properly defragment the drive, which is something modern versions of Windows do automatically in the background. If you don't leave enough empty space, Windows won't be able to move files around to defragment them and the contents of the drive will become fragmented and slower to access over time. If you have an SSD, this doesn't apply.

If you have an SSD, leaving at least 25% of the SSD empty will ensure you have excellent performance. On modern SSDs with overprovisioning, this is probably much too conservative, and even 10% could be an okay number. It really depends on the SSD.

If you need to temporarily fill your drives up and only have 5% of disk space to spare, that's not a problem. Things will just slow down over time, so you'll probably want to free up some space when you can. ☺

CCleaner (Continued from page 8)

no longer trustworthy and something that should be immediately abandoned.

I don't agree. Not at all. So much so that my opinion of those other products has been somewhat diminished.

The worst-case scenario

One thing I've seen referenced is what I often refer to as the "nuclear option" when it comes to malware. Specifically, some competitors have recommended that you completely reformat your machine and reinstall Windows from scratch if you happened to install the affected version of CCleaner.

In an absolute sense, that option is valid. Once you have malware on your machine, you have no idea what it might have done. *But that's true for any and all malware, at any time and from any source.* Why they happened to make that recommendation in response to this specific situation becomes highly suspect if they're not making it any other time.

At a more practical level, it's gross overkill, and in my opinion, unwarranted.

At worst, you might restore from a [backup](#) image taken prior to CCleaner's installation. Honestly, even that is overkill, and not something I recommend or will do myself.

What I recommend

My response to this is pretty simple, actually:

- Update your copy of CCleaner, if you plan to use it, or simply uninstall your current copy. You can always reinstall later when you need the tool again.

- Run up-to-date anti-malware scans. Your automated scans and updates may be enough, but to be on the safe side, have your security tool run a complete scan manually.

- Stay alert to more news. If something more troubling is discovered, then take action in proportion to its severity. Right now, I'm not expecting anything major at all.

Most of all, I'm not recommending that you abandon CCleaner. It remains a good and useful tool.

As long as Avast's response continues to be appropriate, I see no reason to bail.

Read more:

[CCleaner, a Windows Cleaning Tool – CCleaner](#) is a highly-regarded tool for cleaning files, history, cookies, and much more from your computer. It's particularly helpful in Windows 10.

[Security: It's a Spectrum, Not a State](#) – Many people want to be secure, not realizing there's really no such thing as perfect security.

[How Do I Remove Malware?](#) – Trying to remove malware? I'll walk you through the steps and options, from simple to hard, including the only approach that's guaranteed to work. ☺

Preparedness

Information provided by Ann Titus, P*PCompAS

Colorado Springs offers a site with links to various plans and documents on how to prepare for emergencies:

<https://coloradosprings.gov/office-emergency-management/page/make-plan-0>

The links to resources can help your family properly prepare for natural and human caused disasters we could possibly face in El Paso County.

Guides that can be downloaded include:

- Family Communications Plan
- Household Plan
- Important Documents Checklist
- Plan for Disability, Access, and Functional Needs



We may not get hurricanes, but there are other types of disasters that can strike. ☺

P*PCompAS Newsletter
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Coming Events:

Next Membership Meeting: 7 Oct beginning at 9 am (see directions below)

Next Breakfast Meeting: 21 Oct @ 8 am, Country Buffet, 801 N. Academy Blvd.

Newsletter Deadline: 21 Oct

Check out our Web page at: <http://ppcompas.apcug.org>

